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ABSTRACT

This report presents New Hampshire survey data, methodology, and the survey instrument used to measure a school's physical quality and educational effectiveness. The survey instrument collects data in the following categories: school site; building; building systems; building maintenance; building safety and security; space adequacy; and building environment for learning. Questions addressed in each category are included. Survey results from 391 New Hampshire schools are included along with a sample survey. The response of the New Hampshire State Board of Education to the report is also included. (GR)

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ED 450 550

State of New Hampshire
Department of Education

New Hampshire Public Schools
Facilities Adequacy and Condition Study
Report
August 23, 2000

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By
The H. L. Turner Group, Inc.
Concord, New Hampshire

EF 005 855

STATE OF NH DEPARTMENT OF EDUCATION

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APPROACH SUMMARY

Approach Summary:

Our approach to this project revolved around the survey instrument, creating introductory letters and information packages for the districts, and creating training sessions and information presentations for use in explaining the program and how the districts could enter their data. The original survey instrument was developed by The Council of Educational Facility Planners, International as part of their national effort to provide school planners proven mechanisms to self-evaluate their facilities and was part of our original proposal as our recommendation to collect accurate qualitative data that was scalable. The survey instrument was modified in response to a variety of localized factors. This foundation of information was created and finalized in close communication with the staff at the DOE.

The next stage was to complete the training program for administrators giving them vital information that they may need to complete the survey and input the information into a New Hampshire-specific database, using the Internet. The training sites were chosen and the web page/internet database and the input information screens were created based on the survey instrument. These were to be included in the training for maximum effectiveness.

In early May, the DOE mailed the survey instruments, with complete instructions, to all the districts directing them to in turn distribute them to their school administrators. We held six training sessions for administrators; total attendance was 33 people. From mid-May to mid-July we disseminated instructions by fax and email, assisting with a variety of questions and inputting data that respondents could not input themselves.

On July 10 and 11, 2000, five schools were visited to verify the information that was reported on the completed surveys. These five schools were chosen randomly from the surveys that were sent directly to our office for data entry. The accuracy of the results of this qualitative, subjective survey instrument and the respondents' understanding of the process was verified.

METHODOLOGY

Methodology:

Our proposed survey instrument was initially developed by The Council of Educational Facility Planners, International in 1986 to "…. meet the need for a comprehensive method for measuring the quality and educational effectiveness of school facilities." Since then it has undergone modifications to reflect changes in space standards, access requirements and ease of use.

The methodology that we developed, based on this survey, was to have the individual school administrators fill out a hard copy of the survey for their building, using available resources of information, and then input this information into an internet-based database that would eventually reside on the NH Department of Education's server. We encouraged the local administrators to work with a team of staff members and district personnel to collect and report the information for their buildings accurately. The information in this database may be evaluated for additional reports and statistical analysis by the DOE.

RESULTS

Results:

Summary Data:

This Summary shows the percentages and actual number of responses per survey item along with a "Neither" column where no response was made or the respondent considered the attribute to be "adequate". The first table on pages 1-2 is sorted on "strengths", the second table on pages 2-3 is sorted on "weaknesses". The third table on pages 4-6 combines attributes into the major categories. Pages 7-8 of the data is a summary of the information from the "Building Data Record" and page 9 is a Sample School Report.

School Summary Data by Category:

When the administrators filled out their surveys, the information was broken out into seven major categories of interest:

The School Site
The Building
The Building Systems
Building Maintenance
Building Safety and Security
Space Adequacy
The Buildings Environment for Learning

With these major categories we asked the administrators to consider the following questions, per category, as they filled in the information on the attributes of their facility.

The "Neither" column indicates that the respondent either didn't make a choice or that they consider the attribute "adequate"; e.g. that the attribute is neither a strength nor a weakness.

The School Site: Is the physical location convenient? Do you have the types of play areas and athletic fields that complement the educational program at your building? Does rain and snowmelt stay on the site for extended periods of time? Do you have enough parking for staff and visitors during the day and for community events?

The Building: Is the building easily accessible by students, teachers and staff who may have a handicap? Does the roof leak? Is it hard to keep the building warm on a cold and windy winter day? Do the classrooms have acoustical treatments to control noise? Is it easy for the students to move around in the building?

The Building Systems: Does the heating system keep the building comfortable? Are there enough electrical outlets for the classrooms? Do the intercom/telephone systems work well? Does the building have sufficient water?

Building Maintenance: Does it take a lot of extra effort to keep the inside and the outside of the building looking well maintained? Are the bathrooms easy to clean and care for? Are the lighting fixtures easy to clean and care for? Do the custodians have enough space for storage of supplies and equipment?

Building Safety & Security: Does the school have a safe zone for dropping off and picking up students? Are the drop-off locations separated from traffic? Are there enough sidewalks around the school for the students? Are there street signs that indicate school entrances/exits clear and understandable? Does the building have a security plan/program?

Space Adequacy: Is there enough space in each classroom and are the classrooms big enough to meet the needs of the teachers? Does special education have enough classroom space? Do you have enough space for science, industrial arts, home economics, biology, chemistry, and physics labs? Do the arts, library and media spaces have enough room to house all the materials and students? Do sports and athletics have enough space? Do the computer/IA Technology programs have the type of space they need? Do students and teachers have enough space for storage of educational materials? Do administration, guidance and the nurse have enough space? Do the cafeteria and/or multi-purpose rooms support an efficient lunch schedule?

The Buildings Environment for Learning: Is the building interior and exterior attractive and clean? Is the building well lit, well ventilated, and kept at a comfortable temperature? Does the building have meeting areas for students to get together? Are the classrooms large enough to meet the curriculum needs?

Other reports are possible due to the fact that all the raw data now resides on the DOE's server in MS Access Database format. The DOE can design data queries and produce a variety of reports with this information.

Building Data Record Report:

This report indicates the responses to the indicators and questions on the Building Data Record. There may be multiple answers to each question or they could have been left blank. The answers will not add up to the total schools reporting; e.g. a school could have multiple answers to "building surfacing materials" due to the fact that the building may be of various vintages and construction types.

Floor Construction: What are the floors in the facility constructed with?

Building Construction: What are the walls and roofs of the facility constructed with?

Building Surfacing Material: What are the outside walls covered with?

Energy Sources: What types of fuel are used by the facility?

Heating Systems: What type of heating systems does the facility have?

Improvements: Are capital improvements, renovations or major additions in the planning stages, approved or in construction?

Sample School Report:

This is the type of report that can be generated for an individual school.

Summary Data:

Total Schools Responding	391
Table Sorted on Strengths	

Attribute	% Strengths	% Weakness	Neither	#'s Strengths	#'s Weaknesses	#'s Neither
Attractive Setting for the School	84%	10%	6%	328	39	23
Emergency Plan	81%	10%	9%	317	39	35
Location of the School	80%	17%	3%	313	66	12
General Appearance	79%	15%	6%	309	59	23
Cleanliness	76%	18%	6%	297	70	23
Accessibility	73%	24%	3%	285	94	12
Lighting Systems	72%	16%	12%	282	63	47
Attractive Interior	70%	19%	11%	274	74	43
Interior Traffic Flow	67%	23%	10%	262	90	39
Controlled Entrances	66%	26%	8%	258	102	31
Natural Light	64%	20%	16%	250	78	63
Reliability of building systems	64%	29%	7%	250	113	27
Classroom Sizes	63%	27%	10%	246	106	39
Weather-Tight Roof	63%	33%	4%	246	129	16
Comfortable In Winter	61%	32%	7%	239	125	27
Play Areas	56%	32%	12%	219	125	47
Adequacy of building systems	55%	38%	7%	215	149	27
Classrooms adequacy	55%	38%	7%	215	149	27
Library/Media	54%	34%	12%	211	133	47
Cafeteria	53%	34%	13%	207	133	51
Computer Technology	53%	36%	11%	207	141	43
Fresh Inside Air	53%	39%	8%	207	152	31
Safe Drop-Off Zones	53%	42%	5%	207	164	20
Administration	52%	40%	8%	203	156	31
Drainage	51%	37%	12%	199	145	47
Enough Sidewalks	51%	34%	15%	199	133	59
Arts	48%	40%	12%	188	156	47
Music	48%	41%	11%	188	160	43

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Table Sorted on Strengths Continued

Attribute	% Strengths	% Weakness	Neither	#'s Strengths	#'s Weaknesses	#'s Neither
Teacher Preparation	45%	42%	13%	176	164	51
Special Education	44%	46%	10%	172	180	39
Athletics	42%	38%	20%	164	149	78
Athletic Fields	41%	45%	14%	160	176	55
Even Interior Temperatures	39%	53%	8%	152	207	31
Student Meeting Areas	39%	46%	15%	152	180	59
Separation of Traffic	36%	59%	5%	141	231	20
Parking	28%	70%	2%	109	274	8
Laboratories	26%	39%	35%	102	152	137
Building Storage	19%	71%	10%	74	278	39
Storage for teachers and students	17%	76%	7%	66	297	27
Noise Levels	2%	27%	71%	8	106	278

Total Schools Responding 391

Table Sorted on Weaknesses

Attribute	% Strengths	% Weakness	Neither	#'s Strengths	#'s Weaknesses	#'s Neither
Storage for teachers and students	17%	76%	7%	66	297	27
Building Storage	19%	71%	10%	74	278	39
Parking	28%	70%	2%	109	274	8
Separation of Traffic	36%	59%	5%	141	231	20
Even Interior Temperatures	39%	53%	8%	152	207	31
Special Education	44%	46%	10%	172	180	39
Student Meeting Areas	39%	46%	15%	152	180	59
Athletic Fields	41%	45%	14%	160	176	55
Safe Drop-Off Zones	53%	42%	5%	207	164	20
Teacher Preparation	45%	42%	13%	176	164	51
Music	48%	41%	11%	188	160	43
Administration	52%	40%	8%	203	156	31
Arts	48%	40%	12%	188	156	47
Fresh Inside Air	53%	39%	8%	207	152	31
Adequacy of building systems	26%	39%	35%	102	152	137
Adequacy	55%	38%	7%	215	149	27
Athletics	42%	38%	20%	164	149	78

Table Sorted on Weaknesses Continued

Attribute	% Strengths	% Weakness	Neither	#'s Strengths	#'s Weaknesses	#'s Neither
Classrooms	55%	38%	7%	215	149	27
Drainage	51%	37%	12%	199	145	47
Computer Technology	53%	36%	11%	207	141	43
Cafeteria	53%	34%	13%	207	133	51
Enough Sidewalks	51%	34%	15%	199	133	59
Library/Media	54%	34%	12%	211	133	47
Weather-Tight Roof	63%	33%	4%	246	129	16
Comfortable In Winter	61%	32%	7%	239	125	27
Play Areas	56%	32%	12%	219	125	47
Reliability of building systems	64%	29%	7%	250	113	27
Classroom Sizes	63%	27%	10%	246	106	39
Noise Levels	2%	27%	71%	8	106	278
Controlled Entrances	66%	26%	8%	258	102	31
Accessibility	73%	24%	3%	285	94	12
Interior Traffic Flow	67%	23%	10%	262	90	39
Natural Light	64%	20%	16%	250	78	63
Attractive Interior	70%	19%	11%	274	74	43
Cleanliness	76%	18%	6%	297	70	23
Location of the School	80%	17%	3%	313	66	12
Lighting Systems	72%	16%	12%	282	63	47
General Appearance	79%	15%	6%	309	59	23
Attractive Setting for the School	84%	10%	6%	328	39	23
Emergency Plan	81%	10%	9%	317	39	35

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School Summary Data By Category:

This part of the report shows the % and the actual number of respondents per survey item and a "Neither" column where no response was entered.

The School Site:

	The weaknesses of my site are:		The strengths of my site are:		Neither	
Location of the Building	17%	66	80%	313	3%	12
Play areas	32%	125	56%	219	12%	47
Athletic Fields	45%	176	41%	160	14%	55
Drainage	37%	145	51%	199	12%	47
Parking	70%	274	28%	109	2%	8
Category Average	**40%**		**51%**		**9%**	

The Building:

	The weaknesses of my building are:		The strengths of my building are:		Neither	
Accessibility	24%	94	73%	285	3%	12
A weather-tight roof	33%	129	63%	246	4%	16
Ability to be comfortable in the winter	32%	125	61%	239	7%	27
Noise Levels	27%	106	2%	8	71%	278
Interior traffic flow of occupants	23%	90	67%	262	10%	39
Category Average	**28%**		**53%**		**19%**	

The Building Systems:

	The weaknesses of my systems are:		The strengths of my systems are:		Neither	
Reliability of building systems	29%	113	64%	250	7%	27
Adequacy of building systems	38%	149	55%	215	7%	27
Category Average	**34%**		**60%**		**7%**	

Building Maintenance:

	The weaknesses of my maintenance programs are:		The strengths of my maintenance programs are:		Neither	
Cleanliness	18%	70	76%	297	6%	23
Storage for janitorial	71%	278	19%	74	10%	39
General Appearance	15%	59	79%	309	6%	23
Category Average	**35%**		**58%**		**7%**	

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Building Safety & Security:						
	The weaknesses of my safety programs are:		The strengths of my safety programs are:		Neither	
Safe drop-off zones	42%	164	53%	207	5%	20
Separation of pedestrian and vehicular traffic	59%	231	36%	141	5%	20
Enough sidewalks	34%	133	51%	199	15%	59
Controlled entrances	26%	102	66%	258	8%	31
Emergency plan	10%	39	81%	317	9%	35
Category Average	**34%**		**57%**		**8%**	
Space Adequacy:						
	The weaknesses of my building are space for:		The strengths of my building are space for:		Neither	
Classrooms	38%	149	55%	215	7%	27
Laboratories	39%	152	26%	102	35%	137
Library/Media	34%	133	54%	211	12%	47
Athletics	38%	149	42%	164	20%	78
Arts	40%	156	48%	188	12%	47
Cafeteria	34%	133	53%	207	13%	51
Music	41%	160	48%	188	11%	43
Administration	40%	156	52%	203	8%	31
Teacher Preparation	42%	164	45%	176	13%	51
Storage	76%	297	17%	66	7%	27
Computer Technology	36%	141	53%	207	11%	43
Special Education	46%	180	44%	172	10%	39
Category Average	**42%**		**45%**		**13%**	
The Buildings Environment for Learning:	The weaknesses of my building to provide a good environment for learning are:		The strengths of my building to provide a good environment for learning are:		Neither	
Attractive setting	10%	39	84%	328	6%	23
Attractive interior	19%	74	70%	274	11%	43
Even interior temperatures year-round	53%	207	39%	152	8%	31
Fresh inside air	39%	152	53%	207	8%	31
Lighting systems	16%	63	72%	282	12%	47
Student meeting areas	46%	180	39%	152	15%	59
Natural light	20%	78	64%	250	16%	63
Classrooms Sizes	27%	106	63%	246	10%	39
Category Average	**29%**		**61%**		**11%**	

Building Data Record Report

Group	Count
Floor Construction	
Tile	2
Concrete	236
Wood	60
Building Construction	
Masonry and Wood	1
Metal/ Steel Frame Building	1
Steel	1
Steel Frame Building	2
Wood	48
Masonry	206
Building Surfacing Materials	
Construction Block	9
Metal	14
KAL-WALL	1
Brick and Vinyl	1
Brick	217
Aluminum Siding	3
Vinyl	5
Wood	48
Stucco	27
Energy Sources	
Propane	1
Electric	93
Fuel Oil	193
Solar	4
Gas	109
Types of Heating Systems	
Roof Top	40
Room Units	70
Hot Water	182
Forced Air	45
Central	139
Steam	36

Capital Improvements

In Process:		
	No	116
	Yes	93
Pending:		
	No	179
	Yes	32
Planned:		
	No	169
	Yes	15

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Sample School Report

22215 NH, SAU01, District112, Antrim Elementary

Telephone Number	603-588-6371	ANTRIM	NH
Street Address	10 SCHOOL ST		
Site Acreage	4		
Grades Housed	k-4		
Student Enrollment	211		
Proj Population 5Yrs	197		
Number of Floors	1		
Building Name	Main		
Square Footage	17000		
Original Const. Date	1961		
# Teaching Stations	14		
Leased/Relocatable SQF	864		
Fire Inspection ?	Yes		
Code Inspection ?	Yes		
DOE/OCR/ADA Insp. ?	No		
2Yr Lead Test ?	Yes		
Radon Test ?	No		
Asbestos Test ?	No		
Has No Asb. Matl's.	Yes		
Water Source	Municipal Water		
Septic	Municipal Sewer		
Student Capacity	215		

SAMPLE SURVEY

Sample Building Data Record and Survey:

Building Data Record

School _____

Name of Respondent _____ Date of Evaluation _____

Street Address _____

City/Town, State, Zip Code _____

Telephone Number(s) _____

Site-Acreage _____

Building Name _____

Gross Building Square Footage _____ Original Date of Construction _____

Years of Additions: ☐ ☐ ☐ ☐ ☐

Leased Space and/or Re-locatable Square Footage _____

Grades Housed _____ Current Student Capacity (*) _____

Student Enrollment as of October 1, 1999_____

Projected Student Population 5 years_____ 10 years_____

Number of Teaching Stations (*) ____ Number of Floors _____

Are capital improvements (replacement, renovation, additions):

a) Being planned? ☐ Yes ☐ No

b) Approved & waiting to start construction? ☐ Yes ☐ No

c) In construction now? ☐ Yes ☐ No

Energy Sources: ☐ Fuel Oil ☐ Gas ☐ Electric ☐ Solar

Heating System: ☐ Central ☐ Rooftop ☐ Room Units
☐ Forced Air ☐ Steam ☐ Hot Water

Type of Construction: ☐ Masonry ☐ Wood Other _____

Exterior Surfacing: ☐ Brick ☐ Stucco ☐ Metal ☐ Wood
☐ Other _____

Site: ☐ Municipal Water ☐ Municipal Sewer ☐ Well ☐ Septic System

Floor Construction: ☐ Wood ☐ Concrete

☐ Other _____

Has this building been inspected within the last two years by:

a) Fire Department ☐ Yes ☐ No

b) Code Enforcement ☐ Yes ☐ No

c) Department of Ed. ☐ Yes ☐ No

Has this building been tested within the last two years for:

a) Lead (paint/water) ☐ Yes ☐ No

b) Radon ☐ Yes ☐ No

c) Asbestos ☐ Yes ☐ No

c) Other hazards ☐ Yes ☐ No

Identify_____

The building has no asbestos containing materials. ☐

(*) Current Student Capacity: is the maximum number of students that can be housed in the building with no deleterious effects on the desired educational program.

(*) Teaching Stations: These are any spaces where one teacher instructs a group of students. This is any space including non-traditional spaces that were not designed for classroom use.

The School Site:

When you think about the site that your building is on what are its major strengths and weaknesses? Is the physical location convenient? Do you have the types of play areas and athletic fields that complement the educational program at your building? Does rain and snow-melt stay on the site for extended periods of time? Do you have enough parking for staff and visitors during the day and for community events?

	The weaknesses of my site are:	The strengths of my site are:
Location	❑	❑
Play areas	❑	❑
Athletic Fields	❑	❑
Drainage	❑	❑
Parking	❑	❑

The Building:

Is the building is easily accessible by students, teachers and staff who may have a handicap. Does the roof leak? Is it hard to keep the building warm on a cold and windy winter day? Do the classrooms have acoustical treatments to control noise? Is it easy for the students to move around in the building?

	The weaknesses of my building are:	The strengths of my building are:
Accessibility	❑	❑
A weather-tight roof	❑	❑
Ability to be comfortable in the winter	❑	❑
Noise Levels	❑	❑
Interior traffic flow of occupants	❑	❑

The Building Systems:

Does the heating system keep the building comfortable? Are there enough electrical outlets for the classrooms? Do the intercom/telephone systems work well? Does the building have sufficient water?

	The weaknesses of my systems are:	The strengths of my systems are:
Reliability	❑	❑
Adequacy	❑	❑

Building Maintenance:

Does it take a lot of extra effort to keep the inside and the outside of the building looking well maintained? Are the bathrooms easy to clean and care for? Are the lighting fixtures easy to clean and care for? Do the custodians have enough space for storage of supplies and equipment?

	The weaknesses of my maintenance programs are:	The strengths of my maintenance programs are:
Cleanliness	❑	❑
Storage	❑	❑
General Appearance	❑	❑

Building Safety & Security:

Does the school have a safe zone for dropping off and picking up students? Are the drop-off locations separated from traffic? Are there enough sidewalks around the school for the students? Are there street signs that indicate school entrances/exits clear and understandable? Does the building have a security plan/program?

	The weaknesses of my safety programs are:	The strengths of my safety programs are:
Safe drop-off zones	❑	❑
Separation of pedestrian and vehicular traffic	❑	❑
Enough sidewalks	❑	❑
Controlled entrances	❑	❑
Emergency plan	❑	❑

Space Adequacy:

Is there enough space in each classroom and are the classrooms big enough to meet the needs of the teachers? Does special education have enough classroom space? Do you have enough space for science, industrial arts, home economics, biology, chemistry and physics labs. Do the arts, library and media spaces have enough room to house all the materials and students? Do sports and athletics have enough space? Do the computer/IA Technology programs have the type of space they need? Do students and teachers have enough space for storage of educational materials? Do administration, guidance and the nurse have enough space? Do the cafeteria and/or multi-purpose rooms support an efficient lunch schedule?

Space Adequacy:	The weaknesses of my building are space for:	The strengths of my building are space for:
Classrooms	❑	❑
Laboratories	❑	❑
Library/Media	❑	❑
Athletics	❑	❑
Arts	❑	❑
Cafeteria	❑	❑
Music	❑	❑
Administration	❑	❑
Teacher Preparation	❑	❑
Storage	❑	❑
Computer Technology	❑	❑
Special Education	❑	❑

The Buildings Environment for Learning:

Are the buildings interior and exterior attractive and clean? Is the building well lit, well ventilated, and kept at a comfortable temperature? Does the building have meeting areas for students to get together?

	The weaknesses of my building to provide a good environment for learning are:	The strengths of my building to provide a good environment for learning are:
Attractive setting	❑	❑
Attractive interior	❑	❑
Even interior temperatures year-round	❑	❑
Fresh inside air	❑	❑
Lighting systems	❑	❑
Student meeting areas	❑	❑
Natural light	❑	❑
Classrooms Sizes	❑	❑

This survey has been completed by people who are not necessarily qualified to make professional determinations regarding the structural and/or mechanical soundness of this facility and it's systems. Nothing in this survey should be construed to be or should be relied upon as an opinion by such a professional as to the structural and mechanical soundness of this facility.

New Hampshire
State Board of Education

Response Respecting

Laws of 1998, Chapter 267:3

Report to the Governor and Legislature

September 1, 2000

New Hampshire State Board of Education

	Term Expires
John M. Lewis, Chairman Durham (JMLCSL@mediaone.net)	2002
Ann McArdle Manchester (tmgm@mediaone.net)	2004
Joel C. Olbricht Derry (jco@b-ocpas.com)	2001
David B. Ruedig Concord (mruedig@hotmail.com)	2001
Jeffrey M. Pollock Bedford (jmpollock@merchantbanc.com)	2003
Ann M. Logan Amherst (logans@sheena.mv.com)	2004
Gail F. Paine Intervale (g_paine@unhf.unh.edu)	2004

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August 31, 2000

New Hampshire State Board of Education
Response Respecting Laws of 1998, Chapter 267:3

During the 1998 legislative session the New Hampshire General Court passed Chapter 267:3. This required the Board of Education to commission a statewide qualitative study to determine the adequacy and condition of all New Hampshire public school facilities, to review the current method for distributing School Building Aid, and to make pertinent recommendations.

In response to this charge the State Board of Education directed staff from the Department of Education to develop and circulate a Request for Proposals. Three firms submitted bids and The H. L. Turner Group of Concord was selected to design and conduct the study which took place primarily between January and July of 2000. The H.L. Turner Group delivered the attached report this summer. The Turner report summarizes the approach, methodology and results of the survey.

This Report reviews and discusses: (1) Certain limitations of the Turner survey; (2) Our present concerns as to what the Survey suggests; and (3) Our recommendations at this time related to the condition and adequacy of school facilities and to School Building Aid.

Survey and Reporting Process Limitations

Two major limitations of the Turner survey must be emphasized. First, it was a qualitative, "non-technical" self-study, performed within each district by education personnel, not professional engineers. While the Turner staff conducted a number of control type "expert" visits to school districts to check on the validity of the survey results, and found solid accord between survey responses and "expert" reviews, the information compiled remains qualitative impressions from non-experts about the facilities they use. Second, because the data compiled is qualitative in nature, and has been gathered from non-technical sources, it is best used in aggregate form to gain suggestions or impressions about the condition of facilities statewide. While it is possible to draw conclusions about larger groupings of school facilities (e.g. regional groupings) the survey information should not be used to compare individual schools or communities.

With the above caveats stated, it remains our view that the survey contains much useful information, provided by personnel who know their facilities.

The Turner survey provides information covering 391 school buildings. This represents nearly 90% of New Hampshire public schools. Some of the more recent analysis done by the Department however, and included in this section of the report, is based on information provided about 423 buildings. This is so because the Department is continuing to receive information from school districts. While we are pleased with the

large sample, the Board's intention is to have information from all of our school districts in the database and available for analysis.
The Board has looked at items from the "Building Data Record" section of the survey questionnaire to develop information as to enrollment vs. capacity of facilities, regional facility capacity circumstances, and the extent to which rented or relocatable space is used by school districts on a regional basis. In addition, the Board intends to work with other State agencies to perform studies. For example, The Office of Community and Public Health (NH Department of Health and Human Services) has offered to assist the New Hampshire Department of Education in the evaluation of indoor environmental quality and related health issues in New Hampshire's schools.

Finally, Department of Education staff will continue to review and analyze the data to answer further questions about the condition of school facilities in New Hampshire within the limits of what staff capacity and the nature of the data allow.

Summary of Results and Concerns

In the strengths and weaknesses section of the Turner Report data elements are sorted in three ways: by strengths, by weaknesses, and according to the seven categories in the questionnaire (site, building, building systems, building maintenance, safety and security, space adequacy and environment for learning).

The survey results raise concerns that a substantial number of our schools may lack satisfactory space for necessary education programs. We are also concerned that the survey results evidence some health and safety issues.

The bases for these concerns are derived from the following data highlights.

<u>Spaces for Learning</u>
The following percentages of survey respondents reported these aspects of their school facilities as weaknesses:

- Space Adequacy (overall) (42%)
- Adequate space for Special Education (46%)
- Meeting areas where students can work together as teams (46%)
- Adequate space for teacher preparation (42%)
- Space for music instruction (41%)
- Art space (40%)
- Laboratory space (39%)
- Classroom space (38%)
- Computer space (36%)
- Library media space (34%)
- Noise levels (27%)
- Accessibility (24%)

Health and Safety

The following percentages of survey respondents reported these aspects of their school facilities as weaknesses:

- Separation of pedestrian and vehicular traffic (59%)
- Interior temperatures (53%)
- Safe drop off zones (42%)
- Fresh inside air (39%)
- Weather-tight roof (33%)
- Adequacy of building systems (e.g. boilers, ventilation, electrical, plumbing and windows.) (38%)
- Reliability of building systems (29%)
- Controlled entrances (26%)

We have analyzed the age of original construction and have found that 55% of New Hampshire's school facilities were originally constructed before 1960. (See attached graphs #1 and #2) While there has been renovation and modernization of many of the original structures, it remains the case that the original buildings themselves date back, for the majority, over forty years.

A review of the data shows that 221 thousand square feet is reported as leased and/or re-locatable space. While this represents a small percentage of total reported space, we can estimate that it also represents more than 200 re-locatable units in a state with 177 school districts.

A regional analysis shows that most regions of the state are very near full capacity to house students and educational programs, and one region (south central) is over capacity. (See graph #3) In high schools, and to some extent in middle schools, capacity is usually based on a utilization rate of no more than 80% to accommodate the movement of students and variation in class size throughout the school day. The data thus suggest capacity issues.

These results suggest that more attention needs to be focussed on the need for improved school facilities.

Adequate space for Special Education, Art, Music, Library and Media work are important to ensure high quality learning. If we expect higher achievement in the sciences, laboratories and computer stations where students can learn modern science skills are essential.

Professional development has been identified as a critical element of school improvement, yet the survey suggests that in many schools ,there is not the space for professional dialogue, debate and collaborative decision-making. While the real world is full of distractions, when more than a quarter of respondents report that noise is a weakness, this raises further questions about the integrity of our learning environments. Access for all of New Hampshire's students is also a must.

Then too, there are significant concerns as to the safety of students related to traffic flow in many of our schools and as to the general security of some buildings. Questionable air quality, leaky roofs and the inadequacy and low reliability of mechanical building systems concern us as well.

Learning is dependent on having students and staff who are healthy and safe. It is also dependent on having adequate space to instruct in ways that are consistent with what is known about how students learn best.

Recommendations

The following recommendations are related to the review of the building survey data discussed above and arise from deliberative sessions held by the Board focused on facility concerns and School Building Aid.

The development of these recommendations reflects certain guiding principles adopted by the Board. These are: maintaining effective state and local partnerships in the education effort; using State "incentives" as a way of promoting better local activities while controlling costs; and advancing policies deemed to be needed to ensure the highest educational results for New Hampshire's learners.

We recommend the following:

1.) That further studies with more sophisticated analysis of facility issues be carried out. Specifically, these should include a deeper investigation on a comprehensive or sampled basis of a) air quality and temperature management within school facilities, and b) space issues related to educational programs. The nature of the survey used has been described. It was the best resource available for the limited resources allotted.

2.) That School Building Aid continue and that it be fully funded by the Legislature regardless of what changes are made in the program. Pro-ration (i.e. not fully funding School Building Aid, but only some part or portion) allows a promise to be unfulfilled on the part of the State.

3.) That a mechanism for identifying and monitoring the condition of school buildings at the state level be developed and maintained.

4.) That any change in School Building Aid be consistent with New Hampshire having effective State/local partnerships for educational improvement. The State should continue to provide minimum standards for buildings, which will ensure that adequate and appropriate space will be available to conduct educational programs as defined by the local board. Local districts should be allowed the same flexibility in designing and building adequate buildings as they are permitted in designing and building adequate programs.

5.) That districts be encouraged to develop building maintenance plans and capital reserve funds either through building aid bonuses or as a condition to receiving School Building Aid.

6.) That the Legislature should consider whether current bond approval standards are unduly impeding local communities from pursuing facilities improvement. The focus of such consideration should include review as to whether the passage of bond proposals should be made less difficult at the local level by:

a. Reducing the size or eliminating the supermajority required.
b. Bonding School Building Aid and paying the state's portion to the local districts "up front."
c. Incorporating incentives for particular types of projects for a limited time period (similar to the kindergarten program), e.g. paying a fixed additional percentage of School Building Aid to those districts that are identified under a more technical school building examination process as having facility needs of substantial urgency.

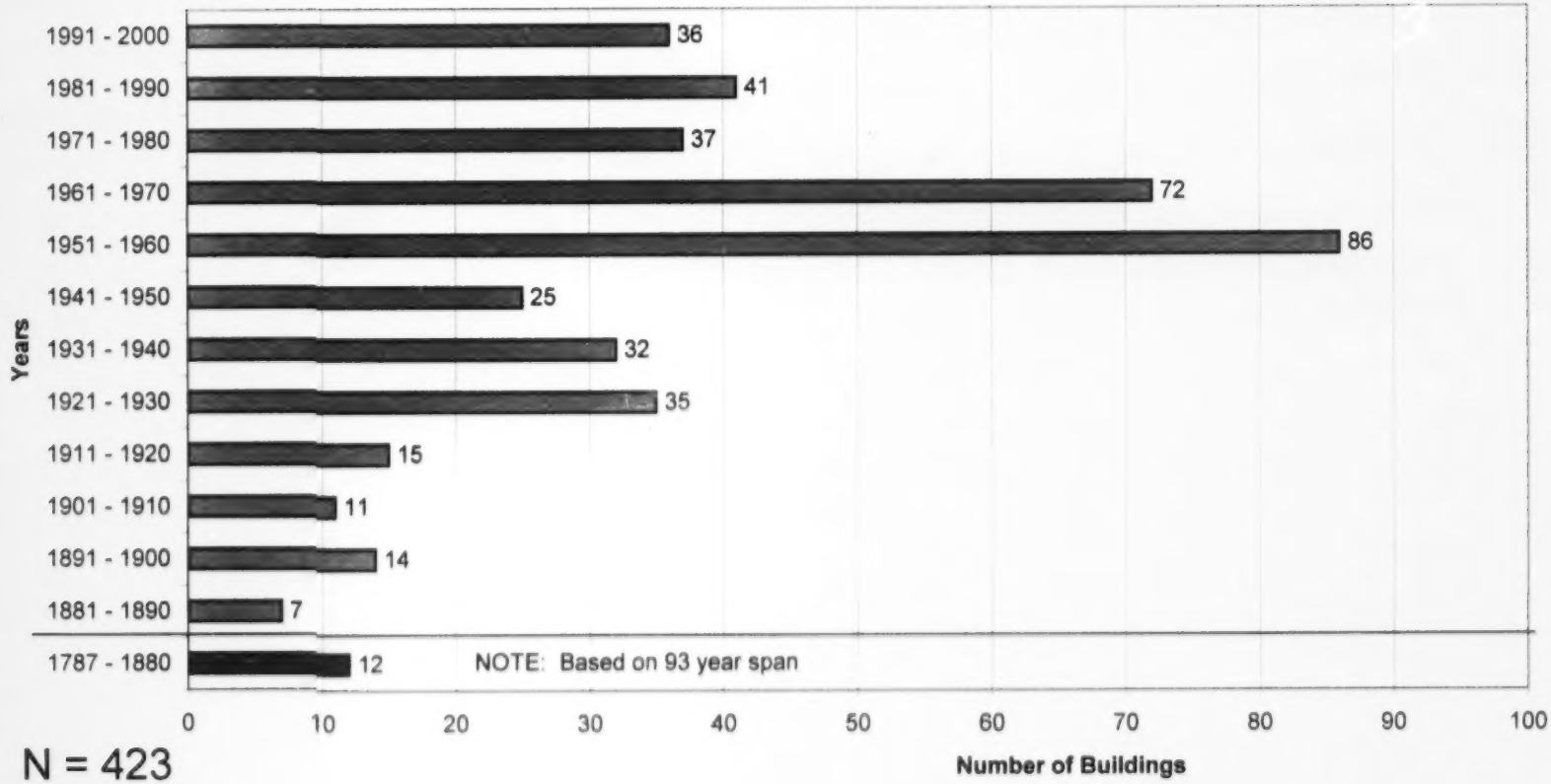
Conclusion

The condition of the places where students learn matters. Our children spend most of their day in our schoolrooms. Clean air, enough room, safe settings all impact education.

New Hampshire's facilities need work. We have a School Building Aid program that can be adjusted and refined to provide support to local communities without encouraging over dependence on the State. We need further study of a more technical nature, but the Turner survey, this analysis and our recommendations hopefully provide a good starting point.

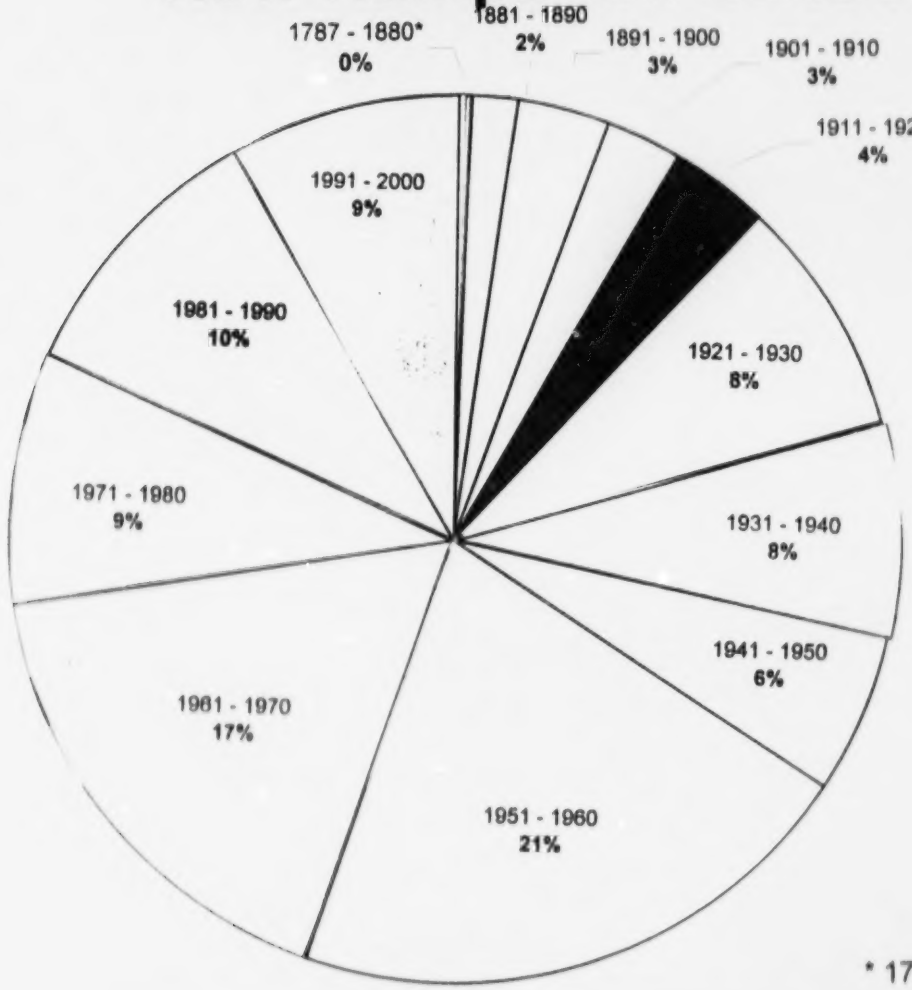
Graph #1

Original Construction Dates of New Hampshire Schools



N = 423

Original Construction Dates of New Hampshire Schools



Graph #2
N = 423

* 1787-1880 (93 year span) = 0.3%

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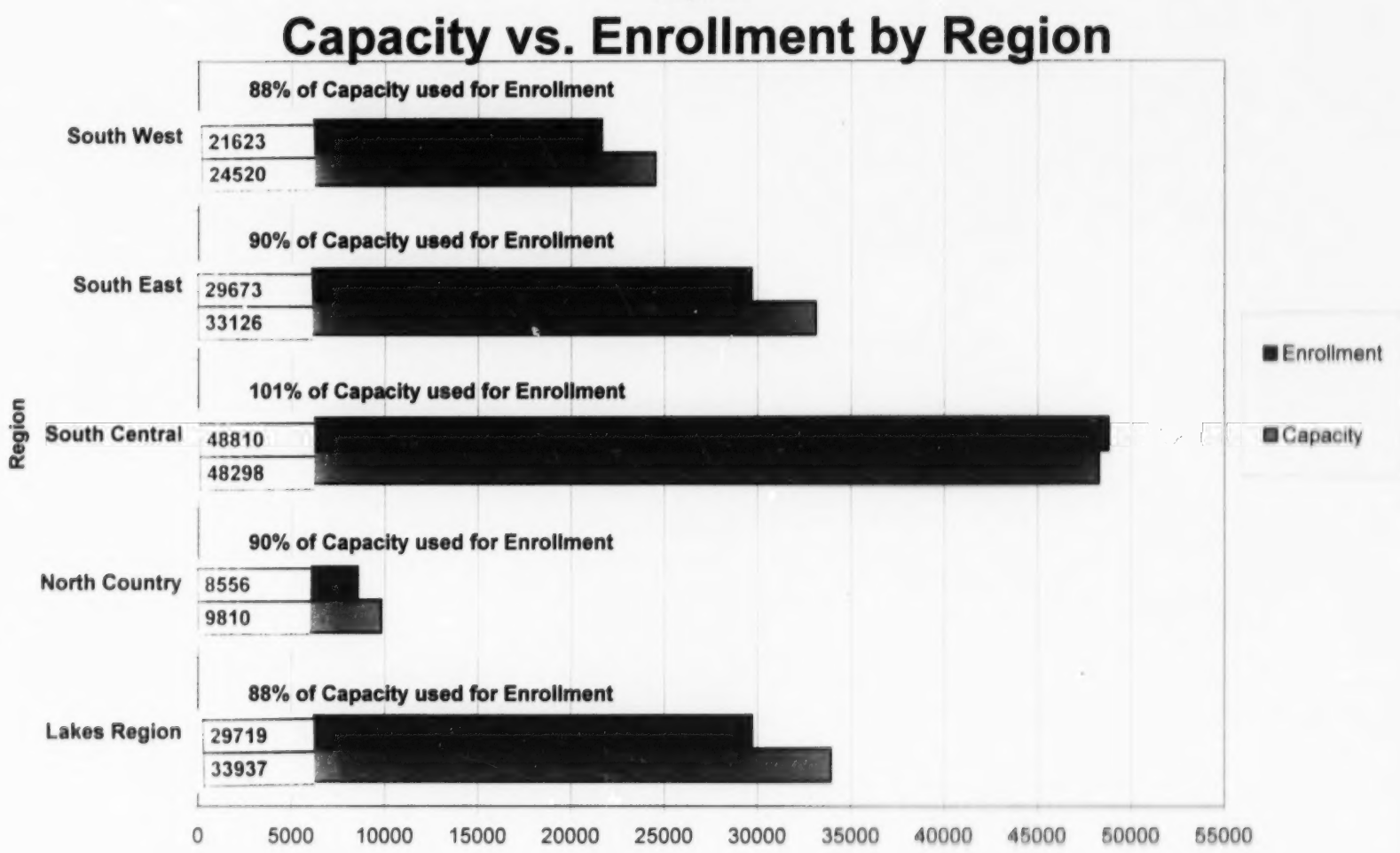
Graph #3


Capacity vs. Enrollment by Region
88% of Capacity used for Enrollment
South West
21623
24520
90% of Capacity used for Enrollment
South East
29673
33126
101% of Capacity used for Enrollment
South Central
48810
48298
90% of Capacity used for Enrollment
North Country
8556
9810
88% of Capacity used for Enrollment
Lakes Region
29719
33937
Region
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
55000
Enrollment
Capacity